

WHAT IS CLAIMED IS:

1. An information processing system in which a memory unit in a portable electronic device is employed by a plurality of business organizations in common, said system comprising:

a management sector for creating issuer key information;

an access apparatus possessed by each of said plurality of business organizations for accessing said portable electronic device, said access apparatus containing file key information assigned to each business organization;

means for creating access key information based on said issuer key information and said file key information; and

means for executing authentication between said access apparatus and said portable electronic device by using said access key information.

2. An access apparatus for a portable electronic device, said access apparatus being used to access said portable electronic device and applied to an information processing system in which a memory unit in said portable electronic device is employed by a plurality of business organizations in common, said access apparatus comprising:

file key information assigned to each of said plurality

of business organizations;

access key information created based on said file key information and issuer key information possessed by a predetermined management sector; and

means for executing processing of authentication between each business organization and said portable electronic device by using said access key information, the authentication being required for effecting an access to said portable electronic device authentication.

3. An access apparatus according to Claim 2, further comprising means for transmitting, to said portable electronic device, file registry information that is created in said management sector by encrypting memory space specifying information for specifying a size of a memory space to be secured in said portable electronic device and said file key information with second key information possessed by said management sector.

4. An access apparatus according to Claim 3, wherein said second key information is said issuer key information, and said file registry information is created by adding said memory space specifying information and said file key information to encrypted information that is created by encrypting said memory space specifying information for

specifying a size of the memory space and said file key information with said issuer key information.

5. An access apparatus according to Claim 3, further comprising means for transmitting issuer key change information to said portable electronic device for updating first issuer key information held in said portable electronic device, said issuer key change information being created by encrypting second issuer key information, which is to be newly recorded in said portable electronic device, with said first issuer key information.

6. An access apparatus according to Claim 5, wherein said access apparatus acquires, together with said issuer key change information, the corresponding access key information from said management sector.

7. A portable electronic device including a memory unit which is employed by a plurality of business organizations in common, said portable electronic device comprising:

a memory unit having memory spaces allocated to said plurality of business organizations, said memory unit storing file key information specific to each of said plurality of business organizations and first issuer key

information;

means for processing information transmitted from an access apparatus with said file key information and said first issuer key information; and

means for determining a result obtained by said processing means and, depending on a determined result, allowing said access apparatus to access the memory space corresponding to said file key information.

8. A portable electronic device according to Claim 7, wherein said portable electronic device receives, from said access apparatus, file registry information that is created by encrypting memory space specifying information for specifying at least a size of the memory space to be secured in said portable electronic device and said file key information with second specific key information possessed by said management sector; restores said memory space specifying information and said file key information from the received file registry information; and allocates the memory space in accordance with said memory space specifying information while recording said file key information in association with the allocated memory space.

9. A portable electronic device according to Claim 7, wherein said second key information is said first issuer key

information, and said file registry information is created by adding said memory space specifying information and said file key information to encrypted information that is created by encrypting said memory space specifying information and said file key information with said first issuer key information.

10. A portable electronic device according to Claim 7, wherein, for updating said first issuer key information held in said portable electronic device, said portable electronic device receives encrypted issuer key change information from said access apparatus, said encrypted issuer key change information being created by encrypting second issuer key information, which is to be newly recorded in said portable electronic device, with said first issuer key information; restores said second issuer key information by processing the received issuer key change information with said first issuer key information; and updates said first issuer key information by said second issuer key information.

11. A portable electronic device according to Claim 7, wherein said portable electronic device is in the form of a card.

12. A portable electronic device according to Claim 7,

wherein said portable electronic device is a portable terminal.

13. A portable electronic device according to Claim 12, wherein said portable terminal is a cellular phone.

14. A method of using a memory space allocated in a memory unit that is provided in a portable electronic device to be employed by a plurality of business organizations in common, said method comprising the steps of:

executing authentication between said portable electronic device and the business organization by using file key information assigned to each of said plurality of business organization and first access key information created based on first issuer key information that is created by a management sector;

determining based on a result of said authentication whether said portable electronic device and the business organization are targets between which data can be mutually communicated, and accessing a memory space allocated in said memory unit when the targets are communicable therebetween; and

updating said memory space after accessing.

15. A method of using a memory space according to

Claim 14, further comprising a step of transmitting issuer key change information to said portable electronic device and changing said first issuer key information.

16. A method of using a memory space according to Claim 15, wherein said issuer key change information is created based on said first issuer key information and second issuer key information.

17. A method of using a memory space according to Claim 15, further comprising a step of receiving second access key information corresponding to issuer key information after replacement.